

APPENDIX C GUIDE FOR SELECTING OPERATING CONDITIONS		
EQUIPMENT TYPE	AVERAGE	SEVERE
<u>B25 & B35:</u> Buckets Clamshell or Dragline Depreciation Period :	Working in gravels, silts, and sands at low impact fresh wa- ter environment. 8,000 - 10,000 hours	Working in rock, hard digging, high impact or salt water envi- ronment. 6,500 - 8,000 hours
<u>C80, C90:</u> Cranes Hydraulic, Truck Mounted Mechanical, Truck Mounted Depreciation Period:	Lift less than rated capacity, intermittent duty. 14,000 - 20,000 hours	Continuous lift near rated capac- ity, excessive swing, abrasive ma- terials, sloped surfaces, salt wa- ter environment. 12,000 - 18,000 hours
<u>C85:</u> Cranes, Mechanical Dragline, Lifting, or Clamshell Crawler Mounted Depreciation Period :	Gravels, silts, pull and lift less than rated capacity. 12,000 - 20,000 hours	Highly abrasive materials, im- pact breakout, continuous load near rated capacity. Salt water environment. 10,000 - 18,000 hours
<u>G10:</u> Generators Depreciation Period:	Working below rated capac- ity, good field conditions. 8,000 - 10,000 hours	Working at or above rated ca- pacity, poor field conditions, such as salt water. 7,000 - 8,000 hours

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<p><u>G15:</u> Graders, Motor</p> <p>Depreciation Period:</p>	<p>Haul road maintenance. Road construction, ditching. Loose fill spreading. Landforming, landleveling. Summer road maintenance with medium to heavy winter snow removal. Elevating grader use.</p> <p>14,000 hours</p>	<p>Maintenance of hard packed roads with embedded rock. Heavy fill spreading. Ripping-scarifying of asphalt or concrete. Continuous high load factor. High impact.</p> <p>12,000 hours</p>
<p><u>H25:</u> Hydraulic Excavators Crawler Mounted</p> <p>Depreciation Period:</p>	<p>Clay, earth digging, no breakout impact, easy continuous or intermittent duty. Mass excavation or trenching where machine digs all the time in natural bed clay soils. Some traveling and steady, full throttle operation. Most log loading applications.</p> <p>10,000 - 18,000 hours</p>	<p>Rock work, pull near rated capacity, uneven surface, impact breakout, abrasive materials. Continuous trenching or truck loading in rock or shot rock soils. Large amount of travel over rough ground. Machine continuously working on rock floor with constant high load factor and high impact. Salt water environment.</p> <p>8,000 - 15,000 hours</p>
<p><u>H30:</u> Hydraulic Excavators Wheel Mounted</p> <p>Depreciation Period:</p>	<p>Continuous digging in sandy clay/sandy gravel, site development, and lumber yard applications.</p> <p>8,000 - 10,000 hours</p>	<p>Continuous digging in rock/natural bed clay, high impact, using hammer, working in forests or quarries.</p> <p>6,500 - 8,000 hours</p>

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<p><u>H35:</u> Hydraulic Shovels Crawler Mounted (nonelectric)</p> <p>Depreciation Period:</p>	<p>Gravels, silts, well broken rock, lift less than rated capacity. Continuous loading in well-shot rock or fairly tight bank. Good underfoot conditions; dry floor, little impact or sliding on undercarriage.</p> <p>14,000 - 18,000 hours</p>	<p>Extremely abrasive tough materials, lifting near rated capacity, impact breakout. Continuous loading in poorly-shot rock, lightly blasted tight banks, e.g. shales, caliches, cemented gravels, etc. Adverse underfoot conditions: rough floors, high impact sliding on undercarriage. Salt water environment.</p> <p>12,000 - 16,000 hours</p>
<p><u>L10:</u> Land Clearing Equipment</p> <p>Depreciation Period:</p>	<p>Working in low impact conditions at or below rated capacity.</p> <p>10,000 hours</p>	<p>High impact conditions working at or above rated capacity.</p> <p>7,000 hours</p>
<p><u>L30:</u> Loaders, Belt</p> <p>Depreciation Period:</p>	<p>Working below rated capacity, with intermittent service.</p> <p>10,000 hours</p>	<p>Working at or above rated capacity with continuous service.</p> <p>8,000 hours</p>

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<p><u>L35:</u> Loaders, Front End Crawler Type</p> <p>Depreciation Period:</p>	<p>Bank excavation, intermittent ripping, basement digging of natural bed clays, sands, silts, gravels. Some traveling. Steady full throttle operations.</p> <p>8,000 - 10,000 hours</p>	<p>Loading shot rock, cobbles. High density materials in standard bucket. Continuous work on rock surfaces. Large amount of ripping of tight rock materials. High impact conditions. Salt water environment.</p> <p>6,000 - 8,000 hours</p>
<p><u>L40:</u> Loaders, Front End Wheel Type (does not include skid steer & tool carriers)</p> <p>Depreciation Period :</p>	<p>Continuous truck loading from stockpile. Low to medium density materials in properly sized bucket. Hopper charging in low to medium rolling resistance. Loading from bank in good digging. Load and carry on poor surfaces and slight adverse grades.</p> <p>10,000 - 13,000 hours</p>	<p>Loading shot rock (large loaders). Handling high density materials with counterweighted machine. Steady loading from very tight banks. Continuous work on rough or very soft surfaces. Load and carry in hard digging; travel longer distances on poor surfaces with adverse grades. Salt water environment.</p> <p>8,000 - 10,000 hours</p>
<p><u>L45 & L50:</u> Loaders with Backhoe Crawler Type and Wheel Type</p> <p>Depreciation Period:</p>	<p>Utility applications in medium to heavy soil. Occassional use of constant flow implements. Dig depths to 3.05m (10 ft.).</p> <p>10,000 hours</p>	<p>Production applications or digging in rock. Regular use of constant flow implements. Dig depths over 3.05m (10 ft.).</p> <p>6,000 - 8,000 hours</p>

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<u>L60:</u> Log Skidders Depreciation Period:	Continuous turning, steady skidding for medium distances with moderate decking. Good underfooting: dry floor with few stumps and gradual rolling terrain. 8,000 hours	Continuous turning, steady skidding for long distances with frequent decking. Poor underfoot conditions: wet floor, steep slopes, and numerous stumps. Salt water environment. 7,000 hours
<u>M10 - .31 & .32 :</u> Clamshell dredges < 5 cy Amphibious Excavator Depreciation Period:	Gravels, silts, breakout force at less than capacity, fresh water conditions. 12,000 - 20,000 hours	Rock, abrasive materials, load at rated capacity, salt water conditions. 10,000 - 18,000 hours
<u>M10 - .51, .52, & .53 :</u> Boats, Skiffs, Crew Boats, Work Boats, Survey Boats & Launches Depreciation Period :	Fresh water applications, light waves, steady to light use. 12,000 - 14,000 hours	Salt water use, medium to high waves, heavy use. 10,000 - 12,000 hours
<u>P35:</u> Pipelayers Depreciation Period :	Typical pipelayer use in operating conditions ranging from very good to severe. 15,000 hours	Continuous use in deep mud or water or on rock surfaces. 10,000 hours
<u>R10:</u> Rippers and Bank Slopers Depreciation Period :	Light rock medium breakout force required. 8,000 hours	Hard rock, excessive wear due to high breakout force. 6,500 hours

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<p><u>S10, S15, S20, & S25:</u> Scrapers Self-Propelled Tractor Drawn Soil Stabilizers</p> <p>Depreciation Period :</p>	<p>Varying loading and haul road conditions. Long and short hauls. Adverse and favorable grades. Some impact. Typical road-building use on a variety of jobs.</p> <p>10,000 - 17,000 hours</p>	<p>High impact conditions, such as loading ripped rock. Continuous high total resistance conditions. Rough haul roads. Overloading.</p> <p>8,000 - 12,000 hours</p>
<p><u>T15:</u> Tractors Crawler (Dozer)</p> <p>Depreciation Period :</p>	<p>Production dozing in clays, sands, gravels, and talus rock. Push-loading scrapers, borrow pit ripping, most land clearing and skidding applications. Medium impact conditions. Production landfill work.</p> <p>10,000 - 22,000 hours</p>	<p>Heavy rock ripping. Tandem ripping. Pushloading and dozing in hard rock. Work on rock surfaces. Continuous high impact conditions. Salt water environment.</p> <p>8,000 - 15,000 hours</p>
<p><u>T20:</u> Tractors Wheel Type (Dozer)</p> <p>Depreciation Period :</p>	<p>Production dozing, push-loading in clays, sands, silts, loose gravels. Shovel cleanup.</p> <p>12,000 hours</p>	<p>Production dozing in rock. Push loading in rocky, boulder-strewn borrow pits. High impact conditions. Landfill compactor work.</p> <p>8,000 hours</p>

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<p><u>T30:</u> Trenchers Chain & Wheel Type</p> <p>Depreciation Period :</p>	<p>Working in sands and silts below rated capacity of the machine.</p> <p>8,000 - 10,000 hours</p>	<p>Working in gravels and abrasive materials at or above the rated capacity of the machine.</p> <p>6,500 - 8,000 hours</p>
<p><u>T45 & T50:</u> Truck Trailers Trucks, Highway</p> <p>Depreciation Period :</p>	<p>Varying loading and road conditions. Typical construction use on a variety of jobs.</p> <p>7,000 - 10,000 hours</p>	<p>Consistently poor road conditions. Oversized loading equipment.</p> <p>5,500 - 7,000 hours</p>
<p><u>T55 & T60:</u> Trucks, Off-Highway Trucks, Water, Off-Highway</p> <p>Depreciation Period:</p>	<p>Varying load and haul road conditions. High rolling resistance and poor traction during part of the job. Some adverse grades. Some impact loads. Typical use in road building, dam construction, open-pit mining, etc.</p> <p>12,000 - 25,000 hours</p>	<p>Continuous use on very poorly maintained haul roads, high rolling resistance and poor traction. Frequent adverse grades and high impact loads. Poorly attached loading equipment with continuous overloading.</p> <p>10,000 - 20,000 hours</p>

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<p><u>T65 - .20 & .40:</u> Tunnel / Mining Equip- ment Tunnel Boring Machines Roadheaders Continuous Miners</p> <p>Depreciation Period :</p>	<p>Mining rock in average con- ditions, machine working below rated capacity.</p> <p>16,000 - 22,000 hours</p>	<p>Mining hard rock in severe work- ing conditions, machine work- ing at rated capacity.</p> <p>14,000 - 20,000 hours</p>
<p><u>W10 & W15:</u> Wagons Bottom Dump Rear Dump</p> <p>Depreciation Period :</p>	<p>Varying load and haul road conditions. Long and short hauls. High rolling resistance and poor traction during part of the job. Some adverse grades. Some impact. Typi- cal road building use in a va- riety of jobs, dam construc- tion, openpit mining, etc.</p> <p>12,000 hours</p>	<p>Continuous use on very poorly maintained haul roads, high roll- ing resistance and poor traction. High impact conditions, such as loading ripped rock. Frequent adverse grades and high impact loads. Poorly matched loading equipment with continuous over- loading.</p> <p>10,000 hours</p>